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ABSTRACT

One of a series of papers on critical issues in vocational-technical education, this paper discusses problems and possible solutions to the need for special consideration of individual needs as students migrate within and between educational programs. Articulation is required so that students may move from program to program, or from institution to institution, with a minimum of wasted time and duplicated effort. Problem areas in planning for articulation that are identified and discussed are students, curriculum and instruction, student personnel services, facilities and resources, mistrust among faculties, and institutional autonomy . What some states are doing in regard to articulation is described briefly, and a discussion of the future of articulation is included. (HD)

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ARTICULATION IN EDUCATION

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Introduction and Background

Assuming that every individual has the potential to contribute positively to society, it is necessary to have a system whereby such potential can be developed and transmitted to that society. Education--the dream and goal of many of our immigrant ancestors--is that system; however, its attainment is not always easy. Many barriers exist for many people; for some it is race, for others, financial problems loom large as obstacles to achievement. Geographic limitations and sex discrimination are other factors that act as barriers to educational goals, especially at the post-secondary level.

Once an individual has overcome such stumbling blocks, it is not correct to assume that the educational path will be smooth, even if academics are not a difficulty. Human nature predicts that people change their minds--or their minds get changed for them--quite frequently. The effects of marriage and family relationships, job-related factors, and various other societal influences change the course of one's life, almost daily in some instances.

One of the results of such changes is that a student may decide to change from a general to a vocational curriculum, or from secondary to post-secondary education. A job opportunity may arise which requires further education or retraining. Perhaps a parent is transferred to another location, requiring the uprooting of an entire family, including high school and college students. Almost daily, a student makes an education-related change which requires administrative, sometimes bureaucratic action.

A Mobile Society. Each year, almost six percent of all American families move from the county in which they have been living. Another eighteen percent move from one house to another within a county. Over a five-year period, between one-quarter and one-third of all families in our country will have moved to a new community.

It is estimated that the average worker changes employment five or six times during a lifetime. While it is not known how many times a worker will have to be formally retrained in the course of such changes, it is fairly certain that additional periodic secondary or post-secondary training will be necessary. All of this clearly indicates that education will not come in neat packages from a single school, institution, or agency.

An Educable Society. Another extremely important consideration for educators is the rapid expansion and explosive impact of the community and junior college movement today. The adoption of the two-year college notion testifies to the rapidity with which changes are being made in education. Since 1971, virtually every state in the union has created, expanded, or reorganized its public two-year college system. In California (in 1971), more than eighty percent of all college freshmen began their post-secondary studies in two-year public institutions. In Florida, the figure was sixty percent. In New York, nearly fifty percent of all full-time students in public higher education were enrolled in two-year colleges.

One reason for this dramatic innovation is the increase in the numbers of persons seeking secondary and post-secondary education in the United States. In 1971, more than 122,000 educational institutions operated in our country, serving nearly 58 million students and employing close to three million teachers and 210,000 administrators. Over $50 billion was spent

for operating expenses alone. Just imagine what these figures are in 1976!

The concept of life-long learning (also called life-time learning) is becoming exceedingly popular, with persons returning to the classroom at several points in their life-times, most increasingly at pre-retirement and post-retirement ages. Once retirement is a reality, more geographic moves are made. Once more, the necessity for smoothing transition becomes apparent.

Knoell and Medsker studied 10,000 transfer students, 345 two-year institutions, and 43 senior colleges and universities, in an effort to predict the success of transfer students. Factors that influenced success of transfer students were: the range of alternatives available in the institution, the personal characteristics of the students, the academic standards and total climate of the institution to which they transferred, and the interaction between the institutions and the students. A major recommendation of their 1964 study was an emphasis on articulation agreements in an effort at cooperative action enabling transfer students to shift programs with a minimum of trouble.

Many educators have since recognized the fact that students who migrate within and between educational programs require special consideration of their individual needs. Articulation plans have been initiated to alleviate some of the difficulties that arise for transfer students. Articulation is required so that students may move from program to program, or from institution to institution, with a minimum of wasted time and duplicated effort. Articulation for vocational education students desiring to go on to post-secondary programs should be just as simple.

Terminology

Just what is articulation? How does it work and who is involved in the process? The Merriam-Webster definition of articulation includes such definitions as "the ability to speak; to utter distinctly; to unite by joints." It seems appropriate that these phrases be kept in mind when considering how the smooth transition between programs and institutions can be facilitated. To be sure, there will be a serious need for speaking clearly and distinctly when educators attempt to fuse together the elements of student programs in some meaningful fashion.

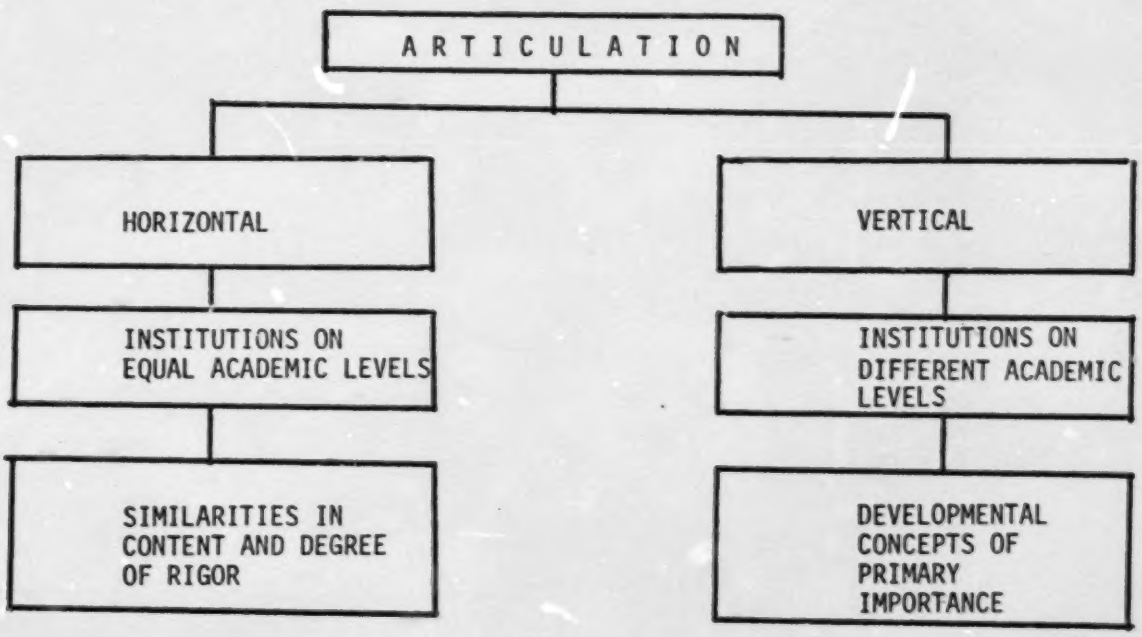

Figure 1

McKinnerney et al state that "Articulation refers to the relationships between educational programs which are designed to provide a smooth transition for the student from one educational program to another." A publication of the State of Missouri's Council on Public Higher Education defines articulation as the "process of cooperation between institutions of higher education for the purpose of accommondating the needs and interests of a student who earns credit at one institution and chooses to transfer to another institution." The articulation guidelines compiled by a consortium of Missouri institutions expands on these definitions:

> Articulation involves people, policies, and procedures, and the problems which evolve as advisors guide their students in the assimilation of earned credit from pairs of programs and/or colleges. Articulation also pertains to students and college personnel, curricula and degree requirements, services to students and college personnel, curricular and degree requirements, services to students and standards by which the services are administered, and/or campus atmosphere.

Horizontal and Vertical Articulation

Dialogue regarding articulation may be between institutions on an equal level in the academic hierarchy, or between institutions that are either above or below each other in that order. In dealing with institutions on the same level--horizontal articulation--similarities in content and degree of rigor should be considered. When dealing with institutions on different levels--vertical articulation--developmental concepts are of prime importance. The dialogue that takes place between institutions at any level should be intensive and exhaustive to find areas of commonality rather than areas of difference. Through these common factors, the transition of the student can be facilitated.

Articulation can also be arranged within an institution for the student who wishes to transfer from one department to another, or from a general to a vocational program--or vice versa. In this paper, horizontal and vertical articulation will not be delineated any further than the above explanation. Rather, the elements of articulation of either type will be examined: problem areas, possible solutions, curriculum considerations, the role of guidance departments, and the future of articulation.

A R T I C U L A T I O N

A--ADVANTAGES TO THE TRANSFERRING STUDENT

R--REALISTIC VIEW OF THE EDUCATIONAL (AND LIFE) PROCESS

T--TRUE PICTURE OF THE PROBLEMS OF TRANSFERRING CREDIT

I--INCONVENIENCE LESSENED

C--CONSIDERATION FOR STUDENTS IN FLUX

U--UNNECESSARY CONFUSION DIMINISHED

L--LESS TROUBLE IN ADAPTING

A--ARTICULATION INCREASES COOPERATION AND COORDINATION

T--TRANSITION MADE EASIER

I--INSTITUTIONS WORK COOPERATIVELY

O--OVERALL PLAN FOR COOPERATIVE RELATIONSHIPS

N--NOT IMPOSSIBLE; IN FACT, PRACTICAL AND OPERATIONAL

Figure 2

Purpose and Rationale

In view of the above information, it seems that articulation between various departments or agencies is the key not only to institutional co-operation but, more important, to facility and convenience for the student. It is the student, after all, who is--or should be--the prime concern of educators.

An Intelligent Clientele. Students in this decade are more active than passive, more vocal (and articulate!) than submissive. They are more aware of their educational needs and seek the most efficient methods of meeting such needs. They know that there is no room in the labor market for the unskilled worker, so they seek to become skilled. They know that the advancement of automation on all fronts mandates more mental ability, fewer physical skills, higher educational attainment at the entry level, and greater versatility and adaptability of the worker. They know this, and they want to meet all these requirements--now! (or, in some cases, yesterday!)

Primary responsibility for preparing these students to accomplish such goals lies within the educational element of our society. Educators need to be ready to meet the needs and challenges of the student caught in an ever-transitional culture.

We read more and more about liberal arts graduates being disenchanted with the world of work, how recipients of liberal arts degrees are at a disadvantage in the competition for employment. Perhaps those graduates were disgruntled as students; perhaps they foresaw the futility of pursuing a liberal arts degree in light of current labor market trends. But perhaps the futility of attempting a switch in programs or institutions

proved to be a greater frustration, and they chose to stick with "the path of least resistance." Articulation agreements may have eased the way for such students.

Educators, particularly those in vocational education, are often under pressure to gear educational programs to the present and future world of work. The industrial complex of our nation is remade so rapidly that relevance becomes an important consideration. Once more, the ease with which students can shift educational gears dictates the speed with which their educational pursuits can result in relevance.

Program articulation should be designed to help the student meet educational goals in the most efficient way possible. Facilitating means whose end is credentialism may not be sophisticated or "professional," but pragmatism is of the essence in our expedient society.

Problems and Possible Solutions--A Discussion

What happens when students with diverse backgrounds and experience apply for admission to the same program? What provisions can educators make to divert jealousy and eliminate antagonism in such situations? What do faculty members do to allow for flexibility and, at the same time, maintain academic standards?

Knoell and Medsker specify four problem areas in planning for articulation:

1) The students: their choices of programs, their degree goals, class attendance patterns, academic and economic resources, and the characteristics and requirements of the colleges they choose.

2) Curriculum and instruction: acceptance of transfer credit, coordination of teaching methods and materials, grading standards, classroom experimentation, and teacher training.

3) Student personnel services: financial aid, orientation programs, improved counseling, adjustment to transfer.

4) Facilities and resources: priorities, enrollment quotas, specialized programs, and calendar coordination.

Students often find the transition from grades 11 to 14 a particularly difficult one. This may be due to many factors, such as:

--variations in the quality of education received;

--differences in the orientation processes of students entering college;

--lock-step advancement;

--lack of complementing curricula between secondary and post-secondary schools.

PROBLEM AREAS IN ARTICULATION

I. STUDENTS
II. CURRICULUM AND INSTRUCTION
III. STUDENT PERSONNEL SERVICES
IV. FACILITIES AND RESOURCES
V. MISTRUST AMONG FACULTIES
VI. INSTITUTIONAL AUTONOMY

Figure 3

One agency which has studied the problems of cooperative relations between institutional levels is the Committee on School and College Relations of the Educational Records Bureau. The findings of this committee indicated that the improvement in school-college relations depends upon the

following three major factors:

1. modification in the philosophy of college admission;
2. willingness of both sides to try to understand each other's problems and points of view; and
3. the nature of the procedures and techniques used in transferring information about individual applicants from school to college (Singer, p. 20)

The Advanced Placement Program of the College Examination Board is attempting to improve communication between high schools and colleges. Joint committees are appointed, composed of persons representing both secondary and higher institutions, to prepare criteria for courses to be offered. Teachers at both levels work together on committees to prepare the course requirements. This program, however, presents many unsolved problems, the most evident apparently being college credit policies, which range from no credit granted to as much as a year's acceleration. Transfer of advanced placement credit from one college to another presents other unsolved problems.

Research suggests that some degree of misunderstanding and mistrust exists between teachers in secondary schools and faculty in degree-granting institutions. University faculty members are accused of indifference in regard to the programs offered on the secondary school level. Their attitude toward secondary teachers has been adversive in nature, and has often resulted in attempt to instruct their secondary school colleagues. Secondary faculty have been no less vocal in their criticisms regarding the inadequacies of collegiate instruction.

Most institutional segments value their autonomy, and herein lies a fundamental problem providing the base from which many other problems arise. Excessive concern for institutional autonomy seems to be a prime consideration at each institutional level.

One possible solution to this problem would be a method to help establish continuity and, at the same time, protect the institutional autonomy that is deemed so necessary to sound administration. Could certain faculty members who serve in the same department in high schools and universities, e.g., business education, acquire joint faculty appointments and teach at both levels? Faculty resistance to this kind of arrangement is predictable, but might be resolved, during the initial stages of an articulation program, with increased reimbursement for those involved. Other concerns to be dealt with would be work load and academic calendars.

Curriculum Implications

The diversity of curricula offered at the post-secondary level and the potential for future development have definite implications for reviewing and expanding articulation efforts, both vertically and horizontally. Articulation becomes more complex as more programs and services are offered and more groups of individuals are served by a single institution.

Many post-secondary institutions provide the first two years of the baccalaureate degree within the community, thus reducing time and financial considerations necessary to obtain a degree. In communities having little or no vocational education available for secondary students, post-secondary institutions may be assigned the responsibility of preparing high school students for entry level employment. The diversity of vocational subjects offered in post-secondary institutions ranges across the occupational spectrum.

While there are no sure-fire remedies for these problems, there are general guidelines to help those who must deal with implementation of articulation programs. For example, varying entrance requirements or admissions policies may place the transfer student in a quandary. A

clearly defined articulation agreement between the institutions involved can help to eliminate confusion.

Evaluation of a student's ability by proficiency examination or other performance testing must be acceptable to the second institution. Likewise, that institution must be prepared to accept the accreditation standards of the school that the student is leaving. Because the results of advanced placement tests may be influenced by inadequate monitoring or other weaknesses, the reluctance of other institutions to accept such scores is understandable.

Recently, there has been extensive discussion and, indeed, serious and vigorous debate, on the matter of extending credit for life experience. This question merits grave consideration but not in the context of this paper. Suffice it to say that articulation agreements must take into account the granting of credit for work experience, on-the-job training, and military service. The College Level Examination Program (CLEP) may be one answer to difficulties arising from such considerations.

Important Considerations. The who, what, when, and how of articulation varies by the type of program and the group being served. Consider the differences in the articulation employed for a successful apprenticeship program in toolmaking, a consumer education program for low income women, and a program in one of the health technologies. Which individuals, agencies, organizations, and institutions with personnel responsible for program development should articulate in each of these situations? A common statement concerning articulation lists these agencies and institutions as businessmen, trustees of institutions, politicians, labor and civic leaders, and parents. There is no question of the need to articulate with these individuals and groups. Other important articulation contacts are:

1. Communication with appropriate individuals in other institutions in private and public sectors which offer related programs.

2. Health technology programs require articulation with health professionals and practitioners; personnel of hospitals and other health service agencies; and local, state, and national professional health organizations and agencies.

3. Accreditation, examination, and licensure are required for many occupations. Continuing articulation with all appropriate agencies concerning licensing and regulation will aid in planning relevant curriculum.

4. Neighborhood opinion leaders or change agents are valuable articulation contacts in planning and implementing programs in consumer education for low income and/or welfare families.

5. Technicians have the need for communication skills as well as a good background in science and mathematics. This is another argument for articulation among technical and/or other programs of an institution.

6. Related technical, vocational, transfer, and non-credit programs require articulation for efficient operation. This is not to say that courses offered for transfer credit are appropriate only for vocational and technical curriculums but may be used in other kinds of programs. (Midjaas,1974)

Guidance and Orientation

The oft-maligned guidance department comes into the spotlight with inquiry into articulation agreement. While some students need help in qualifying for a particular program, others need to identify means of advancing in one program or transferring to another. Even if the counseling staff is well prepared and adequate in number, it may have a hard time convincing students of the necessity or importance of steps to be taken to effect transfer. Often, the guidance staff in secondary schools spends most of their time counseling "college-bound" students, particularly in affluent or extremely poor areas. Counselors at both the secondary and post-secondary levels are often too busy arranging schedules and providing job placement information, thus leaving little time for the necessary inclusion of these personnel in articulation work. Special needs of students must be recognized by counselors, and methods of dealing with peculiarities

must be available.

Orientation is probably one of the best ways of easing transition or entrance into a totally unfamiliar situation. Change is not easy for the human being to cope with. The unfamiliar is usually a source of fear, or at least, considerable apprehension. The responsibility for alleviation of such misgivings belongs not only to the guidance staff but to administration and faculty alike. Articulation specifications decided in committee must be communicated to all delivery components in the institution; often, this task and its implications fall on the guidance staff.

Reverse Transfer. A new facet in the articulation problem between two- and four-year colleges is reverse transfer--those students who transfer from four-year colleges to two-year colleges.

An overall consideration to be made in discussing this type of student migration is the financial costs of attending a college for a period of four years rather than two years. Most community colleges have lower student costs than do public universities or private colleges.

A second reason for reverse transfer is academic failure at the four-year institutions. A third reason for student migration might be the lack of personalization on the four-year college campus.

To obtain information about the phenomenon of reverse transfer, a questionnaire was distributed by student personnel administrators in all of Iowa's two-year colleges during the 1969-70 school year. A total of 315 students, 271 in arts and sciences programs and 44 in the vocational-technical programs, completed the questionnaire.

The following conclusions were drawn from the data collected:

1. More time is given to student discussion in two-year college classes.

2. Four-year college instructors are more interested in their students in an academic sense than in a personal sense as compared to two-year college instructors.

3. Two-year college instructors do a better job of letting students know what they expect from them.

4. Two-year college instructors ask more questions in class than do four-year college instructors.

5. Two-year college instructors do a better job of telling students how well they are meeting the instructor's expectations.

6. Two-year college instructors seem to really like their students more than do four-year college instructors.

7. Student participation in classwork is more important in two-year college classes.

8. More two-year college instructors seem to want to keep track of the student's progress on current assignments.

9. Instructors in two-year colleges are more willing to help students answer difficult questions. (Kuznik et al, p. 26)

What Some States are Doing

Numerous guidelines and "cook-book" type remedies can be offered, but each situation is unique, and a blend of remedies may be the best cure for transitional "ailments." A look at several examples of state and institutional articulation guidelines may help further explain not only articulation but the two-year college phenomenon more expansively.

California and Florida are pioneers in developing articulation models. This seems very appropriate in light of the earlier discussion of their two-year college "boom."

Historically, California is a model of voluntary cooperation among public institutions. As long ago as 1944, California was working at co-ordination of reciprocal services among educational institutions. Annual meetings are held where representatives of appropriate agencies and institutions review and update policy which enables California students to have the "quantity, quality, and variety of education commensurate with their abilities so that when desirable, they can move readily from one segment to another." (Knoell, p. 79)

Florida can boast of another impressive and long-standing policy for articulation. Representatives of all educational levels meet in committee to establish a system which insures that junior college credit earned by transfer students will be recognized by the state universities. While this statement may seem deceivingly simplistic, there are multi-faceted specifications being considered. Florida's outline for ease of transfer within and between educational agencies can serve as a model of articulation guidelines.

Missouri, mentioned earlier, considers planning for transfer an essential service to students. This notion is reflected in the well-organized publication of articulation agreements which stresses "inter-institutional integrity, and a high degree of flexibility...(in) identifying problems, conducting needed studies, and proposing and implementing appropriate solutions." (Council on Public Higher Education for Missouri).

Hawaii's 1973 study of articulation recommendations has been supplemented by a 1975 follow-up study. Articulation guidelines in Hawaii focus on: 1) specification of where authority and responsibility lie; 2) establishment of procedures for implementation and methods for the resolution of problems arising from implementation; and 3) need for the monitoring, coordinating, and evaluating components in the articulation plan. Recommendations of Hawaii's vocational education committee for articulation among and between public secondary and post-secondary institutions in Hawaii can serve as very useful general guidelines that may well translate into practicality for many states and/or school districts.

The Future of Articulation

Most states now have enough community colleges serving students to require state-level attention to articulation. The egalitarian purposes of

higher education demand equality of treatment for all students over a lifetime of continued education. These, then, are conclusions which would seem to typify the future:

--State systems of coordinated post high school education require a planned approach to articulation--it is too big a problem to be left to chance.

--Students will expect full recognition for life and educational experience; both formal and informal experiences will have to be identified in the education "bookkeeping" procedures.

--Past experiences will be accepted as a base upon which future degree requirements will be built. This means that each individual will be considered in accord with his own level of progress, as compared to--and in coordination with--established degree requirements.

--States will plan post high school education as an interrelated system of diverse alternative avenues. Students will expect to use various agencies at various times for a variety of purposes.

--Quality will need to be judged on the basis of individual accomplishments rather than class labels and vague generalizations.

--Formal articulation policy statements will become the general foundation for institutional transfer policies. (Wattenbarger and Medford, 1974, p. 29).

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